

AMENDMENTS TO THE CLAIMS

The listing below of the claims presents in amended form claims 1 through 12 that were originally filed in the corresponding PCT application. The following claims replace all prior versions and listings of claims in the present application:

Listing of Claims:

Claim 1 (currently amended): A method pertaining to the for combustion of a fuel with an oxidant in a heating furnace, wherein the fuel and the oxidant are delivered to a burner head, characterized in that in a first method step said method comprising: a first step of emitting fuel and oxidant are caused to be emitted from the burner head (1; 10) in the close proximity of to each other, so that combustion will essentially be close occurs adjacent to and at a small distance out from the burner head and for a time until there is reached in the furnace space a temperature that exceeds the a spontaneous combustion temperature of the fuel is reached within the furnace; in that in a second method step and a second method step of thereafter emitting the fuel and the oxidant are caused to be emitted instead from the burner head (1; 10) at a mutual distance apart, so that combustion will essentially take place occurs at a distance point spaced from and outwardly of the burner head corresponding to at a distance of at least the a diameter of the burner head and outwards from the burner.

Claim 2 (currently amended): A method according to claim 1, characterized in that wherein in the first method step the fuel is caused to be emitted from a fuel nozzle (2;11) in the burner head (1;10), and the oxidant is caused to be emitted concentrically (3) around said fuel nozzle.

Claim 3 (currently amended): A method according to claim 1 or 2, characterized in that in said, wherein in the second method step the fuel is caused to be emitted from a fuel nozzle (2;11) in the burner head, and the oxidant is caused to be emitted through oxidant outlet openings (4,5;12-14) located on one side of and at a distance spaced from said fuel nozzle.

Claim 4 (currently amended): A method according to claim 3, characterized by including the step of placing said the oxidant outlet openings (4,5;12-14) at a distance from the fuel nozzle (2;11) that exceeds half the a diameter of the burner head (1;10).

Claim 5 (currently amended): A method according to claim 1, 2,3 or 4, characterized by including the step of using a gaseous oxidant and causing the oxidant to have that has an oxygen content of at least about 80 % or higher.

Claim 6 (currently amended): A method according to claim 5, characterized by including the step of delivering the oxidant at an overpressure of at least 2 bar.

Claim 7 (currently amended): A method according to ~~any one of the preceding claims, characterized by claim 1, including the step of~~ using oil as the fuel.

Claim 8 (currently amended): A method according to ~~any one of the preceding claims, characterized by claim 1, including the step of~~ using at least one of natural gas ~~or and~~ propane as the fuel.

Claim 9 (currently amended): A burner for combusting fuel with an oxidant in a heating furnace, where the fuel and the oxidant are delivered to a burner head, ~~characterized in that the said burner comprising:~~ a burner head (1;10) includes including a fuel supply nozzle (2;11); ~~in that the burner head (1;10) also includes and~~ a first oxidant outlet opening (3) ~~in the close proximity of adjacent to the fuel nozzle so that combustion will generally take takes place close to and at a small distance out from adjacent to the burner head; in that wherein the burner head also includes further additional oxidant outlet openings (4,5;12-14) that are located at a distance from the fuel nozzle (2;11), so that combustion will generally take takes place at a distance from the burner head corresponding to at least the a diameter of the burner head and outward from of the burner head; and in that wherein the burner is adapted to deliver head delivers~~ the oxidant at an overpressure of at least 2 bar.

Claim 10 (currently amended): A burner according to claim 9, characterized in ~~that said further wherein the additional oxidant outlet openings (4,5;12-14) are located on one side of and at a distance spaced from said fuel nozzle (2;11).~~

Claim 11 (currently amended): A burner according to claim 9 or ~~10~~, characterized in that said further, wherein the additional oxidant outlet openings (4, 5; 12-14) are placed at a distance from the fuel nozzle (2;11) that exceeds half the a diameter of the burner head (1;10).

Claim 12 (currently amended): A burner according to claim 9, 10 or 11, characterized in that wherein the additional oxidant outlet openings (4, 5) are formed by at least one of Laval nozzles or and venturi nozzles.